cultural with a recreational classification. Most of Herd Creek is classified as semi-primitive non-motorized (57%) and semi-primitive motorized (25%) within the Recreational Opportunity Spectrum.

ENVIRONMENTAL IMPACTS

Environmental impacts to each affected resource are presented in the following table for each alternative and the proposed action. Direct, indirect and cumulative impacts are discussed.

Affected Resource (underlined)

**Alternative 1: Continuation of Existing Permit Authorization**

Threatened and Endangered Species: Fish; Native Fisheries
Livestock grazing periods and durations described in the original AMP of 1975 have been modified with the addition of stubble height and woody use standards in riparian areas, to meet the mitigation requirements of the 1993 Biological Assessment (Biological Evaluation for East Fork East, ongoing action # R39, January, 1993). Possible risks of adverse effects to fish habitat remain, if conditions post-grazing use do not meet the requirement of 6" stubble at the end of the grazing season. Extensive growing season rest periods would be provided after the livestock were removed to re-vegetate and stabilize impacted stream banks and revitalize grazed plant communities.

Spawning habitat, including redds, could be affected by both direct, and indirect impacts of livestock use. The incidence of occurrence of livestock impacts is expected to be low or infrequent along Herd Creek, as a grazing exclusion date of 8/15 is in place under this alternative, and/or livestock exclusion is required when spawning salmon are present. Late periods of use (after mid-September) could impact some localized non-anadromous fishery systems, including bull trout and west slope cutthroat trout habitats, through bank trampling, grazing and browsing.

Vegetation Types and Rangeland Resources
Upland plant communities would be maintained or may slightly decline from current conditions under this alternative. Areas subject to heavy grazing pressure such as around water troughs, salting areas and unfenced upland springs would continue to have impacts such as reduced key forage plant cover and composition, and soil compaction, due to growing season grazing without use standards. Most at risk are the bluebunch wheatgrass plant communities associated with the low to mid elevation ranges. The threat for weed expansion and establishment is greater under this alternative than management proposed in other alternatives, due to continued site disturbance and seed dispersal potential by livestock.

Threatened/Endangered/Sensitive Plants
TES plants and their habitats are expected to be maintained under this alternative. These plants do not provide forage value to livestock and are therefor not grazed at any significant level. With the increased grazing pressure provided by this alternative, trampling of individual plants is more likely than for Alternative 2, however not at a significant level.

Soils

Soil cover and soil stability is expected to be maintained under this alternative. Areas subject to heavy grazing pressure may experience a loss of cover, compaction and increased soil erosion in localized areas, however accelerated soil erosion off the affected area is not likely and has not been observed in the past. Areas with moderate soil erosion hazards are typically not available to livestock grazing due to naturally fragmented forage plant spacing and steep slopes.

Water Quality

Possible risks of adverse effects to water quality would likely exist under this alternative. Longer periods of use in low elevation stream systems would provide little opportunity for recovery or improvement even though deferment and rest is scheduled. Slow recovery would be expected along functional-at-risk segments of perennial streams. The lack of shrub shading and stable banks on some stream systems would continue, while those reaches with good shrub cover and stable banks would likely be maintained due to their limited accessibility to livestock impacts.

Wilderness Study Area (WSA)

Under this alternative, naturalness and opportunities for solitude within the Jerry Peak and Jerry Peak West WSAs would be maintained (Challis Wilderness EIS, 1983).

Recreation

Recreational values under this alternative would be maintained and adverse impacts to recreational activities would be minimal. The incidence of occurrence of conflicts from interactions between recreationists and livestock and/or livestock-related impacts is expected to continue to be low to moderate. A defined grazing schedule as-described in other alternatives could possibly reduce undesirable interactions to an infrequent level of occurrence.

Cultural Resources

Cultural sites associated with upland wetland spring areas are expected to be maintained under this alternative. Sites associated with stream systems may experience adverse impacts with livestock grazing defined with this alternative due to trampling. Those stream systems that are not functioning properly and which may be experiencing livestock induced bank sloughing may also impact cultural sites lying within the active floodplain. Therefore, grazing impacts associated with riparian areas may have a direct effect to cultural sites.

Economic/Social Values

This alternative would maintain the current ranch economies with stable AUM levels and livestock handling requirements limited to those necessary to meet stubble requirements by the end of the grazing season.

Floodplains/Wetlands/Riparian Zones

Floodplains, wetlands and riparian zones would have a low to moderate risk of receiving adverse impacts. Livestock grazing for the scheduled periods of use may impact riparian, floodplain, and wetland vegetation through grazing, browsing, and trampling, by increasing

potential for sedimentation of perennial creeks from bank impacts, even though mitigation standards for end of grazing season residual stubble would be applied. Stream systems currently in functional-at-risk would slowly improve, but would still be at risk of becoming non-functional after significant high flow events. The opportunity for improvement is limited under the three pasture rest rotation system, as indicated by the current conditions. Wetlands associated with upland springs and seeps would likely be maintained in their current condition with no additional adverse impacts or opportunities for improvement.

Wildlife

It is expected that viable and productive wildlife populations would continue to be supported on the allotment as a result of requirements to maintain soil, water and vegetative resources and ecological processes. However, Alternative 1 would result in some competition with wildlife for food, cover and water, and may limit the productivity and reproductive success of some wildlife populations or groups of species. Herbaceous vegetation is an important yearlong cover and forage component of wildlife habitat that is particularly critical during the spring when calving, fawning, nesting and rearing of young occur. On some parts of the allotment, depending on the distribution and period of livestock use, grazing of herbaceous vegetation would reduce hiding cover for newborn big game animals and other ground-dwelling species (e.g. sage grouse), and would reduce the availability of winter forage for elk and other wild ungulates. However, under current management, pastures on the allotment would not be grazed by livestock until after most of the critical spring reproductive period is over, and sufficient herbaceous cover would be provided to support populations of wildlife that are dependent on herbaceous vegetation. Light livestock grazing on some areas of big game spring range may also improve the accessibility of succulent green growth for big game animals. Competition between livestock and wildlife for forage and herbaceous cover would occur primarily on sites that are close to water sources and sites that are easily accessible to livestock (e.g. areas of gentle terrain). On ridgetops, steep slopes and other sites where livestock use is light or otherwise limited by terrain or distance from water, competition between livestock and wildlife for forage and cover would be minimal or nonexistent. Grazing standards and stipulations in riparian areas would help maintain and improve habitat for riparian-dependent wildlife species. The presence of livestock and the trailing of livestock between areas of use would result in the disturbance and displacement of some wildlife species or individual animals from preferred habitats. However, not all pastures would be used at the same time, and areas of undisturbed habitat would be available.

Wild and Scenic Rivers

The outstandingly remarkable values associated with the eligible river segments and suitable Herd Creek segment would be maintained under this alternative. Any adverse impacts from this alternative would be minimal. Livestock grazing management under this alternative would maintain the level of development that resulted in the segments' tentative classifications, and ensure non-degradation of outstandingly remarkable (OR) values, and protect free-flowing characteristics.

Indirect Impacts

Indirect adverse impacts to recreation (reduced enjoyment due to modified plant

communities, fragile streambanks, altered water quality) and to wild and scenic rivers (altered recreational and scenic OR values) may result from grazing impacts on the dependent resources (i.e. riparian, floodplains, water quality, wildlife) although not likely at a significant level. No additional indirect impacts are expected under this alternative.

Cumulative Impacts
Ongoing or proposed actions within or adjacent to the Herd Creek allotment include:

1) Livestock grazing and cropland irrigation on private inholdings located along Herd Creek.
2) Grazing on NF lands.
3) Proposed prescribed burn in Taylor & McDonald Cr. drainages.
4) Various disbursed recreational activities, some commercial outfitting.

Cumulative impacts by other BLM activities (primarily wildlife, recreation, and roads) are generally limited to wild and scenic river OR values, water quality, fish habitat, and riparian zones through the potential for input of sediment into the stream system and potential vegetation disturbances. Continuing the applied grazing use standards would minimize the threat of increased sediment to streams and reduce the potential for adverse impacts to vegetation communities by livestock. Project stipulations applied to any planned NF actions (includes grazing use standards, and burn buffer strips) are designed to minimize the threat of excessive sediment loads into the stream systems. Excessive sediment loads through private land activities and disbursed recreational activities is generally uncontrolled. This alternative would provide adequate protection through maintained aquatic and riparian habitats while contributing limited additional adverse impacts to the water related resources due to the long duration grazing season, standards applied at the end of grazing season, and periodic growing season rest periods.

Summary of Alternative 1 Impacts on Affected Resources
Although impacts to a variety of resources are likely, no significant individual or cumulative adverse impacts are anticipated as a result of this alternative.

**Alternative 2: Modification of Permit with Terms and Conditions**

Threatened and Endangered Species: Fish: Native Fisheries
Threatened and Endangered Species fish, other fish species, and their associated habitats would be expected to improve under this alternative. Grazing use, even though extended to include periodic fall use periods, would be restricted through the proposed grazing standards in this alternative to avoid heavy grazing, browsing or excessive bank shearing. The 4" and 6" median stubble height standards (depending upon season of use) would ensure herbaceous communities are allowed enough stubble for regrowth and vigor enhancement. The 50% livestock browse standard on seedling and young age class woody riparian species would ensure that sufficient woody vegetation is left intact to allow for stream shading, normal growth characteristics and age structure. The bank shearing standardwould assure that streambanks are left intact with 10% or less bank shearing due to livestock. The combined effects of the above standards are expected to avoid excessive sedimentation to the stream.

Implementing an August 10 exclusion date for cattle use along Herd Creek, or when spawning salmon are present, as-recommended in the Herd Creek Watershed Analysis (1997), is expected to provide ample protection to spawning habitat for both anadromous fish and bull trout.

Vegetation Types and Rangeland Resources

Upland vegetation types would be maintained or improved with this alternative. Although livestock could be present throughout the growing season, utilization standards would limit livestock grazing to light to moderate. This restriction, coupled with pasture deferment and rest would result in improved upland vegetation communities. Weed distribution is a threat under this alternative paralleling the distribution of livestock. However, weed establishment would be somewhat reduced through upland use standards resulting in reduced potential for localized site disturbances.

Threatened/Endangered/Sensitive (TES) Plants

TES plants and their habitats are expected to be maintained under this alternative. These plants do not provide forage value to livestock and are therefor not grazed at any significant level. With the increased grazing pressure provided by this alternative, trampling of individual plants is possible, however not at a significant level. The applied grazing use standard would reduce this threat by limiting repeat grazing and localized areas of heavy grazing.

Soils

Soil cover and stability is expected to be maintained or improved under this alternative due to the limited scheduled grazing. With light to moderate grazing early in the growing season, soil cover from litter would increase overall. Some compaction may occur from livestock grazing while the upland soils are moist. This situation would be a localized event (i.e. north slopes) and minimal in extent. With the resulting improved soil cover accelerated soil erosion is not expected.

Although a longer grazing season is provided with this alternative strict conformance to no more than moderate use levels would provide the adequate soil cover and protection from accelerated soil erosion.

Water Quality

Water quality would likely improve under this alternative. Limited livestock use and presence through the application of grazing standards would improve woody and herbaceous plant communities and stabilize streambanks. Stream shading and sediment yield would be improved resulting in positive impacts to water quality.

Wilderness Study Area

Proposed livestock numbers, herd rotation, seasons of use, and resource use standards are expected to help enhance naturalness and opportunities for solitude within the Jerry Peak and Jerry Peak West Wilderness Study Areas. Improvement in natural vegetative communities is expected to occur.